

California Regional Water Quality Control Board

Central Coast Region



Linda S. Adams Secretary for Environmental Protection

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April 28, 2008

Joe McGuire
Pacific Skyline Council, Boy Scouts of America
1150 Chess Drive
Foster City, CA 94404

Dear Mr. McGuire:

ENROLLMENT OF TIMBER HARVEST PLAN (THP) NO. 1-06-187 SCR BCSR - CLIFF UNIT 2006, UNDER ORDER NO. R3-2005-0066, GENERAL CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS - TIMBER HARVEST ACTIVITIES IN THE CENTRAL COAST REGION

The purpose of this letter is to notify you that I have enrolled THP 1-06-187 SCR BCSR-Cliff Unit 2006 under Order No. R3-2005-0066, General Conditional Waiver of Waste Discharge Requirements – Timber Harvest Activities in the Central Coast Region (General Waiver) (Attachment 1).

Please review the attached General Waiver requirements, as you are responsible for complying with all of the prescribed conditions.

MONITORING

California Water Code Section 13269(a)(2) requires monitoring to verify the adequacy and effectiveness of the General Waiver's conditions. Water quality monitoring is required as part of your enrollment under the General Waiver.

The General Waiver requirements include three different monitoring tiers (I, II, and III) based on the proposed timber harvest activities and site conditions. I may modify the monitoring requirements for an individual plan.

Overview of Monitoring Tier requirements:

Tier I: CDF Forest Practice Rules compliance monitoring.

Road inventory program.

Forensic monitoring as necessary.

Tier II: CDF Forest Practice Rules compliance monitoring.

Road inventory program.

Forensic monitoring as necessary.

Visual and photo monitoring of harvest infrastructure.

Tier III: CDF Forest Practice Rules compliance monitoring.

Road inventory program.

Forensic monitoring as necessary.

Visual and photo monitoring of harvest infrastructure.

Water Column monitoring.

The BCSR – Cliff Unit 2006 plan area is located in the Bear Creek subwatershed which is listed as impaired for sediment on the Clean Water Act's 303(d) list. Therefore, your plan has a high cumulative effects ratio. Based on the eligibility criteria, your plan has a low drainage density index of 75, and a medium soil disturbance factor of 1070. This monitoring tier requires visual, forensic, photo, and water column monitoring. Based on the information contained in your timber harvest plan information sheet, you are enrolled under Tier III.

Your Tier III Monitoring and Reporting Program (MRP) is attached (Attachment 2). Please review it carefully. Monitoring <u>must</u> begin at the onset of timber operations. Please inform Water Board staff if you suspect any of the monitoring points might be too difficult to access in inclement weather. You are required to implement the MRP, Road Management Program, Standard Operating Procedure 5.2.3 Photo Documentation Procedure, and Standard Operating Procedures for Instream Turbidity Monitoring until I revise or rescind it.

REPORTING

The reporting requirements for your monitoring program are contained in the MRP and its exhibits. Please review the reporting requirements in your MRP carefully and include all information requested in your reports. Requirements for reporting include annual reporting as well as events that may be affecting water quality throughout the year. Specific requirements include:

- Providing an annual report by November 15 of each year;
- · Status of active timber harvest operations;
- Forest Practice Rules violation reporting;
- Sediment release reporting.

Please provide monitoring reports to us in a timely manner. Failure to provide reports may subject you to civil liability per California Water Code Section 13268.

In addition to your reporting requirements, you must maintain a logbook with all monitoring and water quality analysis data; road inventory program reports; and findings from visual monitoring. You must keep logbooks up to date and available for review upon request by Water Board staff.

The goal of the Regional Water Quality Control Board is protection of water quality and its beneficial uses. Please work proactively with us when dealing with water quality issues. We encourage you to seek our input and assistance when performing road repairs, crossing modifications, and other mitigation work (unstable slopes, etc.). You must, as outlined in the attached monitoring and reporting program, report water quality problems you notice during inspections and maintenance (timber or non-timber related). We may be able to assist the work you do with funding from grants and other programs. Our job is to help you manage your land in a way that minimizes the risk to water quality. Please do not hesitate to contact us if you have any questions or concerns.

If you have any questions, please contact Julia Dyer at idver@waterboards.ca.gov or 805-594-6144.

Sincerely,

Roger W. Briggs

Attachments:

- 1. General Conditional Waiver of Waste Discharge Requirements Timber Harvest Activities in the Central Coast Region
- 2. Monitoring and Reporting Program for THP 1-06-187 SCR BCSR-Cliff Unit 2006 with Exhibits 1 3.

E-mail: Gene Forsburg

Buena Vista Services, LLC gforsburg@earthlink.net

Lisa & Mc Cann

Donna Bradford, County of Santa Cruz donna.bradford@co.santa-cruz.ca.us

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION

ORDER NO. R3-2005-0066

GENERAL CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS – TIMBER HARVEST ACTIVITIES IN THE CENTRAL COAST REGION

(Revised on July 8, 2005)

WHEREAS, the California Regional Water Quality Control Board, Central Coast Region (hereinafter Regional Board or Central Coast Water Board), finds that:

- 1. California Water Code (CWC) Section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, shall file with the appropriate Regional Board a report of waste discharge (ROWD) containing such information and data as may be required by the Regional Board.
- 2. The Central Coast Water Board prescribes waste discharge requirements except where the Central Coast Water Board finds that a waiver of waste discharge requirements for a specific type of discharge is in the public interest pursuant to CWC (Sections 13267 and 13269).

3. CWC Section 13267 states:

- (a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.
- (b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

4. CWC Section 13269(a) states:

- (1) On and after January 1, 2000, the provisions of subdivisions (a) and (c) of Section 13260, subdivision (a) of Section 13263, or subdivision (a) of Section 13264 may be waived by the state board or a regional board as to a specific discharge or type of discharge if the state board or a regional board determines, after any necessary state board or regional board meeting, that the waiver is consistent with any applicable state or regional water quality control plan and is in the public interest. The state board or a regional board shall give notice of any necessary meeting by publication pursuant to Section 11125 of the Government Code.
- (2) A waiver may not exceed five years in duration, but may be renewed by the state board or a regional board. The waiver shall be conditional and may be terminated at any time by the state board or a regional board. The conditions of the waiver shall include, but need not be limited to, the performance of individual, group, or watershed-based, monitoring, except as provided in paragraph (3) below. Monitoring requirements shall be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions. In

establishing monitoring requirements, the regional board may consider the volume, duration, frequency, and constituents of the discharge; the extent and type of existing monitoring activities, including, but not limited to, existing watershed-based, compliance, and effectiveness monitoring efforts; the size of the project area; and other relevant factors. Monitoring results shall be made available to the public.

- (3) The state board or a regional board may waive the monitoring requirements described in this subdivision for discharges that it determines do not pose a significant threat to water quality.
- 5. The Central Coast Water Board, in compliance with CWC Section 13269, reviewed the previously issued categorical waiver for timber harvest activities (Central Coast Water Board Resolution No. 89-04, Water Quality Control Plan (Basin Plan) Appendix A-23) and determined that it should not be renewed.
- 6. In accordance with CWC Section 13269, the Central Coast Water Board shall regulate discharge of waste associated with timber harvest activities through the requirements of this general conditional waiver, or, for timber operations that are not eligible for this waiver, through individual waste discharge requirements or individual conditional waivers.
- 7. The Central Coast Water Board has adopted the Basin Plan for the Central Coast Region, that establishes beneficial uses, water quality objectives, waste discharge prohibitions, and implementation policies that apply to waters of the State and discharges to waters of the State within the Central Coast Region.
- 8. Pursuant to the Basin Plan and State Board Plans and Policies, including State Water Board Resolution No. 88-63, the existing and potential beneficial uses of waters potentially affected by the proposed activity include:
 - a. Agricultural Supply (AGR)
 - b. Aquaculture (AQUA)
 - c. Preservation of Biological Habitats of Special Significance (BIOL)
 - d. Cold Freshwater Habitat (COLD)
 - e. Commercial and Sportfishing (COMM)
 - f. Estuarine Habitat (EST)
 - g. Freshwater Replenishment (FRSH)
 - h. Ground Water Recharge (GWR)
 - i. Industrial Service Supply (IND)
 - j. Migration of Aquatic Organisms (MIGR)
 - k. Municipal and Domestic Supply (MUN)
 - 1. Navigation (NAV)
 - m. Hydropower Generation (POW)
 - n. Industrial Process Supply (PRO)
 - o. Rare, Threatened, or Endangered Species (RARE)
 - p. Water Contact Recreation (REC-1)
 - q. Non-contact Water Recreation (REC-2)
 - r. Shellfish Harvesting (SHELL)
 - s. Spawning, Reproduction, and Development (SPWN)
 - t. Warm Freshwater Habitat (WARM)
 - u. Wildlife Habitat (WILD)
 - v. Inland Saline Water Habitat (SAL)
- 9. The Basin Plan contains water quality objectives developed to protect the above-listed beneficial uses of water. The factors in CWC Section 13241, including economic considerations, were considered as required by law during the development of these objectives. Prohibitions, provisions, and specifications contained in this Order implement these previously developed water quality objectives. Compliance with water quality objectives will protect the beneficial uses listed in the above paragraph.

10. The California Department of Forestry and Fire Protection (CDF) and the California Board of Forestry (BOF) regulate timber harvest activities on nonfederal lands in accordance with the Z'berg-Nejedly Forest Practice Act (Public Resources Code, Section 4511 et seq.) and the California Forest Practice Rules (Title 14, California Code of Regulations, Section 895 et seq.). CDF is the state agency with primary jurisdiction over timber activities. The Central Coast Water Board cannot issue permits to allow timber harvesting, but only regulates water quality impacts of harvesting operations that have received a permit from CDF. CDF issues such permits by approving timber harvest plans or non-industrial timber management plans. The Central Coast Water Board does not have legal authority to require an alternative project.

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- 11. In 1988, the State Water Board:
 - (a) Conditionally certified the "Water Quality Management Plan for Timber Operations on Nonfederal Lands" which included those California Forest Practice Rules selected as best management practices and the process by which those rules are administered
 - (b) Designated CDF and the BOF as joint Water Quality Management Agencies (WQMA)
 - (c) Executed a Management Agency Agreement with CDF and BOF for the purpose of implementing the certified plan and WQMA designations
- 12. The Management Agency Agreement between the State Water Board and CDF/BOF required a formal review of the California Forest Practice Rules and administering processes no later than six years from the date of certification. To date, the State Water Board and CDF/BOF have not completed that review.
- 13. The USEPA has not approved the State Water Board's certification of the California Forest Practice Rules and administering processes for regulation of timber harvest activities on nonfederal lands in California.
- 14. The Central Coast Water Board, in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) (CEQA), has conducted an Initial Study in accordance with Title 14, California Code of Regulations, Section 15063.
- 15. The Secretary of the Resources Agency has certified that the CDF's timber harvest plan regulatory program can function as a substitute for an Environmental Impact Report or a negative declaration (CEQA Guidelines § 15251.) Registered Professional Foresters submit either a timber harvest plan (THP) or Non-Industrial Timber Management Plan (NTMP) and only CDF has the authority to grant discretionary approval for projects. CDF considers all the significant environmental effects of the project and makes a finding under CEQA Guidelines section 15091 for each significant effect. If CDF finds that the timber operations will not have a significant effect on the environment, a THP or NTMP serves as a substitute negative declaration. If CDF finds that the timber operations may have a significant effect on the environment, the THP or NTMP serves as a substitute environmental impact report, and includes mitigation of potential impacts. CDF consults with the Central Coast Water Board when a THP or NTMP is developed. This waiver requires each enrolled Discharger to comply with all requirements of the respective THP or NTMP.
- 16. Relevant factors in determining whether a project covered by a general conditional waiver is in the public interest include the following:
 - Whether the discharge is already regulated by another governmental entity;
 - Whether the discharger will observe reasonable practices to minimize the deleterious effects of the discharge;
 - Whether a feasible treatment method exists to control the pollutants in the discharge;
 - Whether a resource agency (California Department of Fish and Game, County of San Mateo, Santa Cruz, Santa Clara, Monterey, San Benito, San Luis Obispo, Santa Barbara, or Ventura) has filed a water quality related non-concurrence with CDF regarding the proposed harvest and that non-

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- concurrence has not been resolved; and
- Whether conditionally waiving ROWDs and/or waste discharge requirements will adequately protect beneficial uses while allowing the Central Coast Water Board to utilize more of its scarce resources to conduct field oversight, public outreach and, where necessary, enforcement.
- 17. The timber harvest plan regulatory program is regulated by the California Department of Forestry, and requires the Discharger to implement practices to control water quality impacts, including erosion and sedimentation. Local ordinances also require various controls. The conditions of this Order protect beneficial uses by:
 - (i) Prohibiting pollution, contamination or nuisance;
 - (ii) Requiring monitoring and compliance with applicable water quality control plans;
 - (iii) Requiring the Discharger to grant access to Central Coast Water Board staff to perform inspections; and
 - (iv) Requiring approval of the THP or NTMP by the California Department of Forestry and Fire Protection.
- 18. The Central Coast Water Board finds that the adoption of the "General Conditional Waiver of Waste Discharge Requirements Timber Harvest Activities" will not have a significant impact on the environment and will be in the public interest provided that dischargers:
 - (a) Comply with the conditions of this Order; and
 - (b) File with the Central Coast Water Board the applicable eligibility documents as described herein, to demonstrate that compliance with the waiver conditions will be achieved; and
 - (c) Comply with applicable State Water Board and Central Coast Water Board plans and policies and as those plans and policies may be amended from time to time through the amendment process;
- 19. Pursuant to CWC Section 13269, this action waiving the issuance of waste discharge requirements for certain specific types of discharges: (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits which may be required by other local or governmental agencies, and (e) does not preclude the Central Coast Water Board from administering enforcement remedies (including civil liability) pursuant to the CWC.
- 20. A waiver of waste discharge requirements for a type of discharge may be superseded by the adoption by the State Water Board or Central Coast Water Board of specific waste discharge requirements or general waste discharge requirements for that type of discharge.
- 21. Management practices are the most feasible treatment method to control the discharges. If a proposed timber harvest is conducted in the manner prescribed in the THP or NTMP and the conditions of this Order, a waiver of waste discharge requirements is in the public interest and is consistent with applicable water quality control plans, including the Water Quality Control Plan, Central Coast Region.
- 22. The winter period for the Central Coast Region shall be October 15 through April 15.
- 23. The rain year for the Central Coast Region shall be July 1 through June 30.
- 24. The results from the Eligibility Criteria for a specific THP or NTMP will function as a minimum level for establishing monitoring requirements for that THP or NTMP.

- Timber Harvest Activities
- 25. Tier III monitoring is required if ground based equipment is used off of an all weather road during the period October 15 to May 1. Tier III monitoring is required for the next 24 months (until July 31, 2007) for all THPs or NTMPs that fall into Tier II or III.

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- 26. The Central Coast Water Board has adopted a Negative Declaration in accordance with CEQA and the CEOA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.). The Negative Declaration concludes that the waiver of waste discharge requirements for specific types of timber harvest operations pursuant to this Order will not have a significant impact on the environment.
- 27. Copies of the proposed Order and monitoring and reporting plan were transmitted to all agencies and persons known to be interested in this matter according to the applicable provisions of CEQA.
- 28. The Central Coast Water Board conducted a public hearing on July 8, 2005 in San Luis Obispo, California, and considered all testimony and evidence concerning this matter;

THEREFORE IT IS HEREBY ORDERED:

- 1. In accordance with CWC Section 13269, the waste discharges related to timber harvest activities in the Central Coast Region, that are not subject to individual conditional waivers or waste discharge requirements, shall be regulated by general conditional timber harvest waiver requirements, and waste discharge requirements and the requirement to submit a report of waste discharge are hereby waived subject to the following conditions:
 - "Discharger" means the landowner and anyone working on behalf of the landowner in the conduct of timber harvest activities.
 - The Discharger shall submit a Notice of Intent (NOI) on the attached form (Attachment A) or on such other form that the Executive Officer requires. This waiver shall not take effect as to a particular timber operation until the Executive Officer approves the NOI in writing.
 - The Discharger shall comply with all requirements of applicable water quality control plans (examples shown in Attachment B) as these may be modified from time to time pursuant to amendments to water quality control plans adopted by the Central Coast Water Board and approved by the State Water Resources Control Board (State Water Board) and water quality control plans and policies adopted by the State Water Board.
 - The Discharger shall obtain CDF approval of a THP and/or NTMP for the timber harvest activities before enrollment in this waiver takes effect. The Discharger shall conduct timber harvest activities in accordance with the approved THP or NTMP and with all applicable sections for the Forest Practice Rules.
 - Discharger shall notify the Central Coast Water Board concurrently when submitting a request to CDF for a minor or major amendment.
 - The Discharger shall obtain and comply with all local, state and federal permits required by law. The Discharger shall comply with all applicable county ordinances related to timber operations, including zoning ordinances.
 - The Discharger shall not create a condition of pollution, contamination, or nuisance, as defined by CWC Section 13050.
 - The Discharger shall not discharge any waste not specifically regulated by this Order, except in compliance with CWC Section 13264. Waste specifically regulated by this Order includes: earthen

materials including soil, silt, sand, clay, rock; organic materials such as slash, sawdust, or bark. Examples of waste not specifically regulated by this Order include petroleum products, hazardous materials, or human wastes.

- i. The Discharger shall not cause alteration in stream temperature that exceeds Basin Plan requirements.
- j. The Discharger shall allow Central Coast Water Board staff reasonable access, in accordance with Public Resources Code section 4604(b) and California Water Code section 13267, onto the affected property for the purpose of performing inspections to determine compliance with the conditional waiver requirements.
- k. Pursuant to California Water Code Section 13267, the discharger shall comply with Monitoring and Reporting Program No. R3-2005-0066. The Central Coast Water Board needs this information to verify that a general conditional waiver of waste discharge requirements is the appropriate regulatory tool for Timber Harvest activities in San Mateo, Santa Cruz, Santa Clara, Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura counties. Evidence that supports the need for this information was presented at the July 8, 2005 meeting of the Central Coast Water Board, the staff report for Item 26 at that meeting, and Monitoring and Reporting Plan No. R3-2005-0066.
- 1. This Order does not regulate point-source discharges that require an NPDES permit under the Clean Water Act, including but not limited to silvicultural point-source discharges as defined in 40 CFR Chapter 1 Part 122.27.
- m. The Discharger shall take immediate action to repair failed crossings, culverts, roads and other sources of sediment.
- n. All erosion and sediment control devices, management measures and mitigations prescribed in a THP or NTMP shall be maintained in good working order for the term of the general waiver requirements.
- o. The Discharger shall comply with all requirements of the Executive Officer pursuant to MRP R3-2005-0066.
- 2. The Central Coast Water Board, based on the above-noted facts and findings, determines that it is not necessary at this time to adopt individual or general waste discharge requirements for waste discharges related to timber harvest activities that meet the conditions specified in this waiver and which are conducted in accordance with the requirements specified in this waiver.
- 3. This Waiver shall not create a vested right and all such discharges shall be considered a privilege, as provided for in CWC Section 13263.
- 4. The Executive Officer shall not approve the NOI or shall terminate the applicability of a waiver to specific timber harvest activities (as applicable) if the Executive Officer makes any of the following determinations:
 - a. The timber harvest activity is not in compliance with any applicable condition of this waiver.
 - b. The timber harvest activity has varied in whole or in any part from the approved THP or NTMP, unless these changes result in better protection of water quality.
 - c. The timber harvest activity is likely to adversely affect the quality or beneficial uses of waters of the State. In making this determination, the Executive Officer shall consider, at a minimum, the THP or NTMP, information from the pre-harvest inspection or other site inspections, the Notice of Intent, the Eligibility Criteria (Exhibit 1 to MRP R3-2005-0066), and all available monitoring reports.

5. Upon receipt of notice of termination of applicability of the waiver, the discharger shall immediately cease all timber harvest activities that may result in discharges to waters of the State, other than activities necessary to control erosion. Upon notice of termination, the discharger must file a report of waste discharge and applicable filing fee. Timber harvest activities that may result in discharges that could affect the quality of waters of the State may commence only upon enrollment by the Executive Officer under general waste discharge requirements, the adoption by the Central Coast Water Board of an individual waiver of waste discharge requirements or individual waste discharge requirements, or in accordance with CWC Section 13264(a).

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6. This general conditional waiver shall become effective on July 8, 2005, and shall expire on July 8, 2010, unless terminated or renewed by the Central Coast Water Board. The Central Coast Water Board may terminate this waiver at any time, either as to a particular timber harvest or in its entirety.

7. As provided by CWC Section 13350(a), any person who, in violation of any waiver condition, discharges waste, or causes or permits waste to be deposited where it is discharged, into the waters of the state, is subject to administrative or civil liability for the violation.

8. Any person affected by this action of the Central Coast Water Board may petition the State Water Board to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 8, 2005.

Roger W. Briggs, Executive Officer

MONITORING AND REPORTING PROGRAM ORDER No. R3-2005-0066

FOR THE GENERAL CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS – TIMBER HARVEST ACTIVITIES IN THE CENTRAL COAST REGION TIER III MONITORING FOR 1-06-187 SCR BCSR CLIFF UNIT - 2006

April 28, 2008

Your plan is enrolled in Tier III monitoring. THPs that are categorized by the eligibility criteria as Tiers II or III cannot be downgraded to a lower category based on other criteria. The Water Board's Executive Officer may not change the monitoring requirements so they are less stringent than the requirements in the designated tier from the eligibility criteria.

This Monitoring and Reporting Program Order No. R3-2005-0066 (MRP) is issued pursuant to Water Code sections 13267 and 13269. Failure to comply with this MRP may subject you to monetary civil liability in accordance with Water Code section 13268 and 13350. Monitoring shall begin at the onset of timber harvest operations and must comply with this MRP and any subsequent revisions. Monitoring shall continue until this MRP is rescinded.

The Water Board's Executive Officer determines which monitoring tier applies to a THP after considering the THP, information from the pre-harvest inspection or other site inspections, the Timber Harvest Information Form and Fact Sheet, and the Eligibility Criteria (attached in Exhibit 1).

SITE SPECIFIC MONITORING LOCATIONS FOR TIER III MONITORING

This MRP takes into account specific site conditions and mitigations to establish monitoring locations (see attached map, Exhibit 2 Monitoring Locations) that will provide functional monitoring information. The Discharger¹ is required to perform monitoring at these locations as described below in Section I – Implementation and Effectiveness Monitoring and Monitoring Frequency; Section II – Data Logging and Reporting; and Section III – Standard Provisions.

VISUAL MONITORING POINTS: The Discharger is required to conduct visual monitoring at the points listed below.

¹ "Discharger", "you", or "your" means the landowner and anyone working on behalf of the landowner in the conduct of timber harvest activities.

Visual monitoring points shall include the full length of roads, watercourse crossings, landings, skid trails, water diversions, watercourse confluences, known landslides, and all mitigation sites in the Timber Harvest Plan (THP) area (as documented the CDF approved THP).

PHOTO-MONITORING POINTS: The Discharger is required to monitor Photomonitoring points listed below (guidelines in Exhibit 3). Photo-monitoring points:

Site B - repair of existing road.

WATER COLUMN MONITORING POINTS: The Discharger is required to measure instream temperature and turbidity conditions at the following water column monitoring points:

Turbidity monitoring locations above and below:

Per the requirements for Tier III monitoring in Order No. R3-2005-0066, Monitoring and Reporting Program, Timber Harvest Activities, turbidity monitoring is required for all "newly constructed or reconstructed Class I and II crossings." This plan area has no newly constructed or reconstructed Class I or II crossings. Considering the absence of Class I or II watercourses, smaller size, and relatively mild topography of the plan area, no storm-event based turbidty monitoring is required as part of the Tier III monitoring for this plan at this time.

Turbidity monitoring is still required as part of forensic monitoring requirements.

Temperature monitoring locations:

Per the requirements for Tier III monitoring in Order No. R3-2005-0066, Monitoring and Reporting Program, Timber Harvest Activities, the discharger is required to monitor temperature continuously in Class I watercourses. Considering the absence of a Class I watercourse within or near the plan area, no temperature monitoring is required as part of the Tier III monitoring for this plan at this time.

CDF FOREST PRACTICE RULES COMPLIANCE MONITORING: The Discharger is responsible for and is required to ensure timber harvest activities are conducted in accordance with the approved THP and with all applicable sections of the Forest Practice Rules. This includes allowing site access for compliance inspections by California Department for Forestry and Fire Protection and Central Coast Regional Water Quality Control Board pursuant to 40 CFR Article 8, Section 4604.

ROAD INVENTORY PROGRAM: The Discharger is required to develop and implement a Roads Management Program (example attached in Exhibit 2, Big Creek Road Inventory Program) within the THP area. The road management program must be approved by the Water Board's Executive Officer prior to implementation.

FORENSIC MONITORING: The Discharger is required to conduct forensic monitoring as described in Section I below.

SECTION I – IMPLEMENTATION AND EFFECTIVENESS MONITORING AND MONITORING FREQUENCY

VISUAL MONITORING

VISUAL MONITORING POINTS: Visual monitoring points must include the full length of roads, watercourse crossings, landings, skid trails, water diversions, watercourse confluences, known landslides, and all mitigation sites (as documented in the CDF approved THP) in the plan area. Visual monitoring points must be at locations within the timber harvest plan area where timber harvest activities have the greatest risk of potential discharge (sites may be established by the Water Board's Executive Officer during or after the pre-harvest inspection).

VISUAL MONITORING FREQUENCY: The Discharger is required to monitor all visual monitoring points established by the Water Board's Executive Officer during or after the pre-harvest inspection for existing or potential sources of erosion. The Discharger is required to perform visual monitoring within 12 to 24 hours of storm events of two inches of rain of greater within a 24-hour period.

"Year One" – You are required to monitor a minimum of three times over each 12 months during "Year One" monitoring. "Year One" monitoring begins with the onset of timber harvest operations. "Year One" monitoring then continues during the entire length of time active timber harvest operations occur plus one year past the end of active timber harvest operations.

Monitoring Event One:

The Discharger is required to perform the first monitoring event within 12 to 24 hours of the first storm event that yields two inches of rain or greater within a 24-hour period.

Monitoring Events Two and Three:

The Discharger is required to perform the next two monitoring events within 12 to 24 hours of the next two storm events (one monitoring event each storm) that yield two inches of rain or greater within a 24-hour period and soil saturation after the start of the winter period on October 15.

Years Two through Five – In years two through five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer that implemented management practices are functioning to protect water

quality and beneficial uses (as documented by information contained in the annual report and post-harvest inspection conducted by Water Board staff), visual monitoring shall be implemented according to the Road Management Program developed by the Discharger and approved by the Water Board's Executive Officer (example attached in Exhibit 3, Big Creek Road Inventory Program).

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: You may not begin Year Two monitoring until you are directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger is required to repeat "Year One" monitoring. In addition to supplementary monitoring, the Water Board's Executive Officer will determine additional management measure implementation required.

Summary of Visual Monitoring Frequency:

"Year One":

minimum of three events

Years Two through Five: consistent with the Road Management Program developed by the Discharger and approved by the

Water Board's Executive Officer.

PHOTO-MONITORING

PHOTO-MONITORING POINTS: Photo-monitoring points shall be at locations within the timber harvest plan area where timber harvest activities have the greatest risk of potential discharge (sites may be established by the Water Board's Executive Officer during or after the pre-harvest inspection). Photomonitoring points must include sites up and down stream of each newly constructed or reconstructed Class I and Class II watercourse crossings and landings within a Class I or II Watercourse or Lake Protection Zone (WLPZ). Monitoring photos need to be of sufficient quality to record the effectiveness of the implemented management practice.

The Discharger must:

- i. Utilize the attached document titled "Standard Operation Procedure 5.2.3 Photo Documentation Procedure" (including any subsequent revisions to SOP 5.2.3) as the protocol for all photo-monitoring (attached in Exhibit 3).
- ii. Utilize flagging, rebar, or another method of establishing the photomonitoring point site locations.
- iii. Utilize all photo-monitoring point locations until this Monitoring and Reporting Program is revised or rescinded.

PHOTO-MONITORING FREQUENCY: The Discharger is required to monitor all photo-monitoring points established by the Water Board's Executive Officer during or after the pre-harvest inspection.

"Year One" - You are required to photo-monitor according to the following four conditions during "Year One" monitoring.

- Prior to the onset of timber harvest operations as baseline monitoring. (One Photo Set)
- Following the first significant storm event (First Storm) (One Photo Set).
- Following completion of timber harvest activities (One Photo Set).
- Following a significant storm event during the month of April (April Storm) (One Photo Set). A significant storm event means any storm with two inches of rain or greater within a 24-hour period and soil saturation (i.e., soil saturation typically occurs after a minimum of four inches of precipitation after the start of the winter period on October 15).

Additionally, the Discharger shall photograph new or reconstructed Class I and Class II water crossings:

 Before construction begins, after construction is completed, and after the crossing structure is removed (if crossing is temporary).

The Discharger is required to conduct photo-monitoring within seven days of all of the following:

- 1. The first storm.
- 2. Completion of timber harvest activities.

3. April storm events. If no significant storm event occurs in the month of April, the Discharger must complete photo-monitoring by April 30 of the same year.

Years Two and Five - In years two and five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer that implemented management practices are functioning to protect water quality and beneficial uses (as documented by information contained in the annual report and a post-harvest inspection conducted by Water Board staff), the Discharger must conduct the April storm photo-monitoring.

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: The Discharger may not begin Year Two monitoring until directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger must repeat "Year One" monitoring. In addition to supplementary monitoring, the Water Board's Executive Officer will determine additional management measure implementation required.

Summary of Photo-monitoring Frequency:

"Year One": 2 photo sets (minimum)

Year Two: 1 photo set Year Five: 1 photo set

FORENSIC MONITORING

1. If at any time during implementation or effectiveness monitoring, the Discharger observes failed management measures and/or source of discharge, the Discharger is required to conduct forensic monitoring to identify the source. Management measure failure is defined as: 1) whenever an implemented management measure creates a condition of pollution, contamination, or condition of nuisance, as defined by CALIFORNIA WATER CODE (CWC) Section 13050, or 2) when lack of implementation of a necessary management measure creates a condition of pollution, contamination, or condition of nuisance, as defined by CWC Section 13050.

- 2. If management measures fail (this includes failure to implement appropriate management measures as determined by CDF and documented by CDF as a violation of the Forest Practice Rules) the Discharger is required to photo² document them and is required to implement management practices immediately to prevent discharge and impacts to water quality.
- 3. If timber activities cause a discharge (sediment, soil, other organic material, etc.) into waters of the State, the Discharger is required to measure instream turbidity (using grab samples) at the point of discharge into waters of the state. If there is a discharge into a Class III watercourse and water is no longer flowing, the Discharger is required to measure in-stream turbidity in the closest Class I or Class II watercourse downstream of the discharge. The Discharger is required to monitor turbidity as prescribed for forensic monitoring consistent with the requirements in the document Central Coast Regional Water Quality Control Board, Timber Harvest Program, Standard Operating Procedures for Instream Turbidity Monitoring (October 2006) (attached in Exhibit 3).
- 4. If at any time during implementation or effectiveness monitoring, the Discharger observes a discharge (sediment, soil, other organic material, herbicides, pesticides, fluids from timber equipment (oil, hydraulic fluid, etc.), etc.), the Discharger is required to notify the Water Board within 24 hours.
- 5. The Discharger is required to submit to the Water Board a written report, including photo documentation, water quality data, and the management measures or corrective actions and a description of their effectiveness within 10 working days. Upon review of the report, the Water Board's Executive Officer will determine completeness of the report and the need for additional actions necessary for the protection of water quality and beneficial uses.

FORENSIC MONITORING AREAS OF CONCERN: The following areas must be addressed during forensic monitoring if water diversion, feral pig activity, or trespass activity are causing or threatening to cause impacts to water quality.

Water Diversion: The Discharger is required to monitor the water diversion point(s) for total daily water usage when water is being diverted. The Discharger is required to monitor the creek to ensure no more than 10% of the creek flow is diverted.

² Monitoring photos need to be of sufficient quality to record the effectiveness of the implemented management practice.

Feral Pig Activity: During any inspection, the Discharger is required to document all evidence of feral pig activity near watercourses that may be contributing discharges to waters of the state. The Discharger must address the feral pig activity according to forensic monitoring requirements described in 1-5 above.

Trespass Activity: During any inspection, the Discharger is required to document all evidence of trespass activity near watercourses that may be contributing discharges to waters of the state. The Discharger must address the trespass activity according to forensic monitoring requirements described in 1-5 above.

FORENSIC MONITORING FREQUENCY: The frequency of Forensic Monitoring is coincident with implementation and effectiveness monitoring, or at any time a failed management measure and/or discharge is reported or observed.

SECTION II - DATA LOGGING AND REPORTING

LOGBOOKS: The Discharger is required to maintain logbooks for recording all visual and water analysis data. Logbooks are required to include documentation of maintenance and repair of management practices. These logbooks must be available for inspection to the Water Board staff.

HEALTH AND SAFETY: The Discharger is responsible for ensuring that all monitoring is done in a safe manner. If any monitoring point is too dangerous to sample, then the Discharger is required to report this circumstance to the Water Board within 48 hours.

ROAD MANAGEMENT PROGRAM: The Discharger is required to develop and implement a Roads Management Program (example attached in Exhibit 3, Big Creek Road Inventory Program) within the THP area. Prior to implementation, the road management program must be approved by the Water Board's Executive Officer. After each storm event that triggers an inspection, the Discharger is required to perform a field inspection and prepare a field form as described in the protocol for the road management program. The Discharger is required to enter the data into a logbook (same as described in item a. above) and database or spreadsheet which tracks observations, work completed, and dates of last review. If the need for repair is immediate, the Discharger is required to promptly develop an appropriate treatment so that the Discharger can complete corrective action as soon as practical.

SEDIMENT RELEASE REPORTING: The Discharger is required to report to the Water Board within 48 hours whenever at least one cubic yard of soil is released to a waterway due to anthropogenic causes or at least five cubic yards of soil is released to a waterway due to natural causes, or when turbidity is noticeably greater downstream compared to upstream (of a crossing or the Plan area). The Discharger is required to submit a written report to the Water Board within 10 days of detection. The Discharger is required to investigate source areas of sediment. If sources are found, the Discharger will locate and document the source and size of the release. If sources related to timber harvest activities are found, the Discharger is required to immediately correct the source if possible, or schedule corrective action at an appropriate time given the site conditions.

VIOLATION REPORTING: The Discharger is required to report any violation of the Forest Practice Rules, to the Water Board within 48 hours. The Discharger is required to provide the report in writing to the Water Board within 10 working days of the violation. The written report must include photo documentation and water quality data (if discharge enters waters of the state) before and after

remedial action. Upon review of the report, the Water Board's Executive Officer will determine completeness of the report and the need for additional actions necessary for the protection of water quality and beneficial uses. The Discharger is required to complete any additional monitoring the Water Board's Executive Officer determines is necessary.

ANNUAL REPORTING: By November 15 of each year, the Discharger is required to submit an Annual Report to the Water Board using the template that can be downloaded from:

http://www.waterboards.ca.gov/centralcoast/Facilities/Timber Harvest/index.htm

Under "Monitoring and Reporting" click on "Annual Report Template." In addition to the reporting requirements already set forth in the MRP, the annual report must include each of the following³:

General

- ❖ The name and address of the person submitting the report, as well as the day, month, and year in which the report is being submitted, at the top of the first page.
- ❖ The subject line of the annual report must state the THP number, three-letter county code, plan name as it appears in the approved THP, NTO number, and specific units within the THP that have been enrolled under the General Waiver.
- Time period during which the data was collected.
- ❖ List Tier level and summarize the monitoring requirements.
- A status of active timber harvest operations including:
 - Day, month, and year the harvest opened and closed for the season.
 - o Previous year activities (types of activities, locations, percent harvested, area of harvest, and extent of overall plan completion)
 - o Planned activities including estimated month and year harvests activities must resume.
 - Estimated month and year harvesting will be completed.
 - o Wet weather problems observed.
 - o Any other critical information.
- A summary of all violations. If there were no violations, please state it as such.

Portions of these requirements and sections of the template may not apply to your specific MRP (e.g. If your MRP does not require temperature monitoring, the temperature monitoring requirements should be ignored).

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- ❖ Detailed documentation of rainfall measurement procedures and locations or a reference to the page number in the THP where this is described. Describe the type of rain gauge(s) used. If applicable include the link to the Web site where data for the rain gauge may be viewed.
- ❖ With the first annual report, a copy of the road management program.
 - o A summary of the road management program⁴ and actions implemented for the protection of water quality and beneficial uses.
- Recommendations for improving the monitoring and reporting program.

Water Quality Monitoring (if required)

- A summary of the water quality monitoring performed during the previous year. Any monitoring described in the summary must also include an electronic submittal of the data.
- ❖ A detailed map with the following specifications:
 - o In color (if possible).
 - Title stating: "Water Quality Monitoring Locations for THP No. XXXX"
 - All monitoring locations and routes clearly marked with unique site identification tags.
 - o A Key or Legend identifying all monitoring locations and routes.
 - o North Arrow.
 - o Scale

Visual Monitoring

- A summary of all visual monitoring activities performed during the previous year.
 - Summary must include dates and times visual monitoring occurred and any corrective actions taken during inspections.
 - Attach inspection forms or copies of logbook pages detailing inspections.

Photo-monitoring (if required)

Submittal of all data and photos in electronic format.

⁴ Big Creek's Road Inventory Program may be used as a model.

Turbidity Monitoring (if required)

- ❖ All data submitted in an electronic format compatible with Microsoft Excel.
- ❖ Make and model of turbidimeter being used.
 - o Copy of the manufacture's protocol / recommendation for proper use of the turbidimeter.
- ❖ A summary of all turbidity monitoring activities performed during the previous year.
- Completed Field Data Sheet with data from all monitoring events. (if more than four events, there is no need to complete top section on additional pages)

Continuous Temperature Monitoring (if required)

- ❖ All data submitted in an electronic format compatible with Microsoft Excel.
- Make and model of the data loggers being used at each monitoring location.
 - o Copy of the manufacture's protocol / recommendation for proper use of the loggers.
- Calibration check form for each data logger.
- ❖ Description of any modifications or adjustments made based on the calibration checks and field observations.

BCSR - Cliff Unit 2006

Monitoring and Reporting Program Timber Harvest Activities Order No. R3-2005-0066

SECTION III - STANDARD PROVISIONS

- The Water Board shall be allowed:
 - a. Entry upon premises where timber harvest activities occur;
 - b. Access to copy any records that must be kept under the conditions of these requirements;
 - c. To inspect any timber harvest activity, equipment (including monitoring and control equipment), practices, or operations regulated or required under these requirements; and,
 - d. To photograph, sample, and monitor for the purpose of showing timber harvest requirements compliance.
- 2. The Discharger is required to maintain records of all monitoring information and results. Records must be maintained for a minimum of three years after the MRP is rescinded. This period may be extended during the course of any unresolved litigation or when requested by the Water Board.
- 3. Any person signing a report makes the following certification whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The Water Board's Executive Officer may modify or rescind this Monitoring and Reporting Program at any time, or may modify or rescind the monitoring and reporting program as to a specific Discharger. Any such modification or rescission must comply with California Water Code section 13269 or 13267.

Roger W. Briggs, Executive Officer

April 29 208

Date

Exhibits:

Exhibit 1

Inspection Report(s)
Copy of the Timber Harvest Plan Information Form and Fact Sheet
Eligibility Criteria

Exhibit 2

Monitoring Locations

Exhibit 3

Big Creek Road Inventory Program
Standard Operating Procedure 5.2.3 Photo Documentation Procedure
Standard Operating Procedures Continuous Temperature Monitoring
Standard Operating Procedures Instream Turbidity Monitoring

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Exhibit 1

Inspection Report(s)
Copy of the Timber Harvest Information Form and Fact Sheet
Eligibility Criteria

Memo

To:

File – Timber Harvest Plan No. 1-06-187 SCR BCSR – Cliff Unit 2006

From:

Julia Dyer, Environmental Scientist Qulia Dyer

CC:

Matt Thompson, Senior Water Resource Control Engineer

Date:

April 28, 2008

Re:

Preharvest Inspection of Timber Harvest Plan No.1-06-187 SCR BCSR

Cliff Unit 2006 and Active harvest inspection.

Key Information

Inspection Dates	June 18, 2007 and March 3, 2008	Persons Present	Affiliation		
Property Size (ac)	312	June 18, 2007			
Plan Size (ac)	73	Julia Dyer	Water Board		
Yarding Type	Tractor (Long-line)	Bethany Crews	Water Board		
	Rubber tired skidder Cable (Ground Lead) Cable (High lead)	Gene Forsburg	Forester		
		March 3, 2008			
		Julia Dyer	Water Board		
Watershed	San Lorenzo River	Gene Forsburg	Forester		
Sub drainages	Bear Creek				
303(d) Listed	Sediment		<u> </u>		
Fisheries	Steelhead				
	Landowners Coho (Hachery) Coho (Hachery) Pacific Skyline Council, Boy Scouts				
Landowners					
of America					
Sig Name on Plan	Gene Forsburg				

History

The BCSR – Cliff Unit 2006 property was largely clear cut and burned in about 1910 although some residual trees remain on the steepest slopes. The current landowner selectively harvested most of the property 1991 under the name of Cliff-Hiller Woods unit.

Inspection Report Inspection Date: 6/18/07 and 3/3/08

Location and Management

The plan area is located approximately one mile east of the town of Boulder Creek. The 312-acre property is managed for private recreation and timber with small conservation harvests reoccurring approximately every four years.

All the proposed harvest area drains north toward Bear Creek. Bear Creek, a subwatershed of the San Lorenzo River, is an impacted stream with a substantial sediment load resulting from urbanization, historical harvesting, and road construction. The proposed harvest is does not include any Class I or Class II watercourses.

Haul Route

The proposed haul route includes Scout Ranch Road, this road has been used as a haul route on previous harvests and is owned in fee by the applicant to the edge of Bear Creek County Road. The bridge crossing of Bear Creek, a concrete bridge designed by CalTrans, requires no modification for use by heavy trucks.

Rain Gauge Location

Rainfall will be based on data as measured at California Department of Water Resources Boulder Creek station http://cdec2.water.ca.gov/cgi-progs/queryFx?BDC.

Inspection

Water Board staff conducted a preharvest inspection of the BCSR – Cliff Unit 2006 property on June 18, 2007, accompanied by the Registered Professional Forester (RPF) Gene Forsburg. Water Board staff was unavailable to attend the California Department of Forestry and Fire Protection's January 9, 2007 preharvest inspection as part of the review team.

Water Board staff's inspection included a representative sample of the roads, skid trails, landings, and watercourse crossings. Water Board staff also inspected the proposed monitoring site locations for photo, turbidity, and temperature. The property contains Class III watercourses exclusively. Additionally, the proposed plan will not include any newly constructed or reconstructed watercourse crossing. Therefore, there are no appropriate locations for turbidity or temperature monitoring for this harvest area.

During the June 18, 2007 inspection, staff observed minor signs of sediment movement throughout the property indicated by sediment fans on the road bed and the collection of sediment against a silt fence above one of the culverts.

On September 17, 2007 the RPF notified Water Board staff that he had commenced active harvest of the BCSR - Cliff Unit 2006 in advance of receiving an approved General Conditional Waiver of Waste Discharge Requirements - Timber Harvest

1-06-187 SCR BCSR - Cliff Unit 2006

Inspection Report Inspection Date: 6/18/07 and 3/3/08

Activities in the Central Coast Region (General Waiver). Water Board staff notified the RPF that he must cease active harvesting and schedule a follow up inspection prior to the issuance of a General Waiver. The follow-up inspection, conducted on March 3, 2008, allowed Water Board staff to determine if the harvest activity resulted in a discharge to waters of the state. On March 3, 2008, Water Board staff inspected a representative sample of the roads, skid trails, landings, and watercourse crossings and determined there is no evidence of discharges to waters of the state as a result of the active harvest conducted prior to the issuance of the General Waiver.

Based on review of the Timber Harvest Plan, the June 18, 2007 and March 3, 2008 inspections, and special considerations of this site Water Board staff finds the proposed harvest and its associated management practices and mitigations protective of water quality and therefore appropriate for the site. Water Board staff photographed the site.

Recommendations

Water Board staff has no recommendations at this time.

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6_18_07.doc

Roger Briggs, Executive Officer c/o Julia Dyer Central Coast Regional Water Quality Control Board 865 Aerovista Place, Suite 101 San Luis Obispo, CA 93401

Date: 7/2/07

REQUEST FOR ENROLLMENT UNDER THE GENERAL CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS - TIMBER HARVEST ACTIVITIES IN THE CENTRAL COAST REGION.

Dear Mr. Briggs,

As the landowner(s) of the following Timber Harvest Plan (THP) or Nonindustrial Timber Mangement Plan (NTMP), I would like to request coverage under the General Conditional Waiver of Waste Discharge Requirements – Timber Harvest Activities in the Central Coast Region.

THP/NTMP#:	1-06-187 SCR
Plan Name as written in the THP / NTMP:	"BCSR - Cliff Unit 2006"
Unit name(s) or number(s): (For NTMPs only)	N.A.

(note: If a water quality based non-concurrence has not been resolved, then the applicant must apply for an individual waiver)

As requested, I have attatched the following documents:

- A complete, accurate, and <u>signed</u> Timber Harvest Plan Information Form and Timber Harvest Plan Fact Sheet (Form and Fact Sheet).
- A site map with proposed monitoring points, proposed monitoring route, creeks, landings, skid trails, roads, and mitigation points clearly identified and labeled.
- A site map with slides and EHR areas identified with roads and skid trails.
- Proof of CDF approval of the THP/NTMP (copy of the "green sheet").

I certify that the information contained in the Form and Fact Sheet and on the site map accurately represents site conditions on the property. I also aknowledge that I am ultimately responsible for all activities that accur on my property.

Landowner(s) Signature*:

Date: 1/20/0)

*Must receive original signature, folue ink preferred.

Timber Harvest Plan Information Form

1. Plan or Notice Name:	Plan Nun	nber:				
BCSR – Cliff Unit 2006	1-06-187	SCR				
2. Landowner's Contact Information:						
Name: Pacific Skyline Council, Boy Sci	outs of Amer	ica	**************************************			
Address: 1150 Chess Drive			<u> </u>	· · · · · · · · · · · · · · · · · · ·		
City: Foster City	State:	CA.	Zip Co	ode: 94404		
Phone: (650) 341-5633	E-mail add	ress (op	tional):			
3. Name and Phone Number of Contac	t Person(s):					
Name: Joe McGuire			Phone: (51	O) 769-1918		
Name:)		
4. Registered Professional Forester :						
RPF Name/Signature: Gene Forsburg, Buena Vista Services, I	LC	RPF N	umber: 18	73		
Address: 1134 Ballena Blvd. #E6			· · · · · · · · · · · · · · · · · · ·			
City: Alameda	-	State:	CA	Zip Code: 94501		
Phone: (510) 299-4101	E-mail	il address (optional):				
5. Certification:	· · · · · · · · · · · · · · · · · · ·					
I, the Landowner named above, hereby ce or CDF-accepted notice and the accompar	nvina fact she	et accura	ately repres	ent site conditions and I		
understand that, as the Landowner, I am u property. I also understand that I am ultim Waste Discharge Requirements or Waiver referenced activity.	ltimately responsi	onsible f ble for c	or all activit ompliance	ties that occur on my with all conditions of any		
Signature*:				Date: 🔀 /		
*Must receive original signature, blue ir	nk preferred.			Midn		

Attachments:

- Timber Harvest Plan Fact Sheet
- Site map with all proposed monitoring points, proposed monitoring route, creeks, landings, skid trails, roads, and mitigation points clearly identified and labeled.

- Site map with slides and EHR areas identified with roads and skid trails.
- Revised Drainage Plan for Access Road
- Summarry of Existing Culverts and Requirements
- List of adjoining owners
- Proof of CDF approval of the THP/NTMP (copy of the "green sheet").

Timber Harvest Plan Fact Sheet

The following supplemental information will be used in the approval process of the above-referenced Timber Harvest activity.

1. Timber Harvest Plan									
Name: BCSR Cliff Unit 2006		Number: 1-06-187 SCR							
Location: Santa Cruz County near E	Boulder Ck								
2. Responsible Parties									
Land Owner Pacific Skyline Council	l, Boy Scout	s of America							
Address: 1150 Chess Drive									
City: Foster City		State CA	Zip Code 94404						
Phone: (650) 341-5633		il address (op	· · · · · · · · · · · · · · · · · · ·						
Timber Owner (if different from Land (Owner): Sam	e as land ow	ner						
Address:									
City	S	state	Zip Code						
Phone:	E-mai	mail address (optional):							
Forester: Gene Forsburg, Buena Vi	sta Services	LLC							
Address: 1134 Ballena Blvd. #E6									
City: Alameda	3	tate CA	Zip Code 94501						
Phone:	F-mai	address (on	tional):						

3. Timber Harvest Plan Summary

(510) 299-4101

a) THP size and watershed size

Acreage of THP (parcel size): 312 acres in ownership
Acreage to be harvested (during this conditional waiver enrollment period): 73
Watershed Name (e.g. Pajaro, San Lorenzo, etc.): San Lorenzo
Planning Watershed Name and #: Bear Creek, 3304.120300
Total acres in planning watershed: 10,900
Acres harvested in planning watershed in last 15 years: 1,008
Acres currently proposed for harvest in the planning watershed in addition to this proposed harvest (include any approved NTMPs): 500

b) Logging Technique (Yarding) (check all applicable)

Ground based (skidding, long line): XX	Cable Yarding: XX	Helicopter:
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c) Roads

Number and length of:	Seasonal	All-Weather				
Existing Roads:	8,000 feet	2,000 feet	Road V	Vatercou	irse Cross	sings:
New Roads:	None	None		Total	Perm	Temp
			Class I:	1	1	0
Roads in unstable	Class II:	Class II: 3		0		
If yes, explain: Reconstructed road at		Class III:	4	4	0	
location "B". All other road unstable areas						
are historical only.						
Roads in WLPZ? (YES/NO) If ye	es, # of feet and	explain: No	one (exc	ept III EL	Z)
# of feet of roads in	n High EHR: 1	100%	Extreme El-	IR: Non-	e	
# of feet of roads of	lecommission	ed: None				
Any decommission	ed in high/ext	treme EHR?	High EHR	: None		
(YES/NO) If yes #	of feet in: N.A	4.	Extreme E	EHR: No	one	

Note: All road watercourse crossings are existing. Class I crossing is a "highway" bridge.

d) Skid Trails (If the plan contains areas with unmapped skidtrails, please indicate the acreage of these areas.) Within Tractor area (44 acres) there is a network of existing skid trails; here, existing trails will not be flagged except within nominal Class III Equipment Limitation Zone (ELZ). Within Forwarding area (15 acres) 1500 feet of new trail is flagged.

area (15 acres) 1500 feet of new trail is flagge	ea,			
Existing skid trails (number/length): 17, 5700'	ourse Cro	ossings:		
New trails (number/length): 1 - 1500 feet		Total	Perm	Temp
Reconstructed Roads (number/length): None	Class I:	None		
Skid Trails in WLPZ (YES/NO)?	Class II	None		
If yes, explain: None (except Class III ELZ)	Class II	1: 6	None	AII
Trails in unstable areas (YES/NO)? If yes, expl	ain: Yes ,	one site	in forwa	rding
area. Trail avoids site per route approved by	y CGS.			
# of feet of skids in High EHR: All Extrem	ne EHR:	None		
# of feet of skids decommissioned: None				
Any tractor operations in areas with high/extrem	ne F	ligh EHR:	44 acres	5
EHR with no flagged or marked skid? (YES/NO) E	xtreme El	HR: Non-	e
If yes, # of acres in: Yes - existing trails only	•			
within Tractor area and outside of ELZ. With	hin			
Forwarding area (15 acres) 1500 feet of new	trail			
in forwarding area is flagged.				

e) Landings

of landings decommissioned: None

p.3

Existing landings (number): 6	
New Landings (number): None	
Reconstructed Landings (number): None	
Landings in unstable areas? (YES/NO) If yes, explain: Landing "A" red sediment trap	quires
Landings in WLPZ? (YES/NO) If yes, explain: None (except Class III E	:LZ)

f) Stream Classes

.,	
# of each type of stream:	Linear feet of stream:
1: None	l: None
il: None	II: None
111: 14	III: 5,500 feet */-

g) Winter operations (YES/NO)?

If yes, summarize (include information from item 23 of the THP, dates of operation (when is drop dead date?), and a map showing potential areas of operation). Winter operations except on all-season roads automatically place a plan in Tier III monitoring: Yes; see summary below. Although included in THP, currently have no intention to conduct winter operations. If this changes, will notify RWQB and adopt Tier III monitoring as applicable.

Summary of allowable operations by period:

Activity	Oct 15 - Dec 15	Dec 16 - Mar. 31	April 1 - April 15		
Timber felling	Yes	Yes	Yes		
Erosion control	Yes	Yes	Yes		
Tractor operations	Yes	No	Yes		
Cable yarding & decking	Yes	Yes	Yes		
Log loading and hauling	Yes	No	Yes		

h) Erosion Hazard (check all applicable)

ſ	Medium:	High: XX		 	 	 extreme:	 	
٠,			_	 	 	 	 	

Note that the Extreme area corresponds to Cable Only harvest (14 acres). All else is High.

i) Percent Canopy Retained in the Watershed & Lake Protection Zone (WLPZ)

The court control of the control of
Class I: 100% (no class I)
Class II: 100% (no operations near class II)
Class III: 50% (within Class III ELZ)
No-Cut Zone(s)? (YES/NO) If yes, describe: Yes, 28 acres inc. all Class I, II

j) Mitigation points (summarize or import from timber harvest plan) -Reference site map

Water Crossings: None (except nominal maintenance of trash racks, etc.)	_
Roads: Road repair at "B", road to be rocked up to "D" and road drainage per	

attached map of rolling dip locations

Skid Trails: Seed, slash mulch trails at "E", "F". Trail avoids unstable site in

Forwarding Area per THP.

Landings: Straw bale sediment traps at "A", "C"

k) In Lieu Practices (YES/NO)?

If yes please explain reason(s) in lieu practices are utilized: None

I) Water Drafting (YES/NO)?

Drafting location(s): No drafting

Drafting flow rate (gallons/minute):

Other drafting in watershed (number/total flow rate estimate):

m) Cumulative Impact Analysis

Threatened and Impaired for Steelhead/Coho? (YES/NO) Yes

303(d) Listed Waterbody (YES/NO)? Yes

If yes, what is the impairment (sediment, temperature, etc.)?:

Sedimentation, siltation

Sources of Cumulative Impacts (briefly describe): No significant cumulative effects identified. This conclusion significantly informed by observations of conditions resulting from several earlier harvests on the subject property including one on most of the subject acreage

n) Proposed Monitoring Points and Data

Describe all monitoring points shown on site map:

Please provide any water temperature data acquired from the THP/NTMP or surrounding areas with your application.

Proposed monitoring points:

Site 3 - existing culverts

Site B - repair of existing road

(no water temperature data acquired)

o) Rainfall measurement procedures and locations

Please provide a detailed description of rainfall measurement procedures and locations or a reference to the page number in the THP / NTMP where this is described. Rainfall will be based on data as measured at http://cdec2.water.ca.gov/cgi-progs/queryFx?BDC possibly supplemented by measurements taken by property's resident ranger.

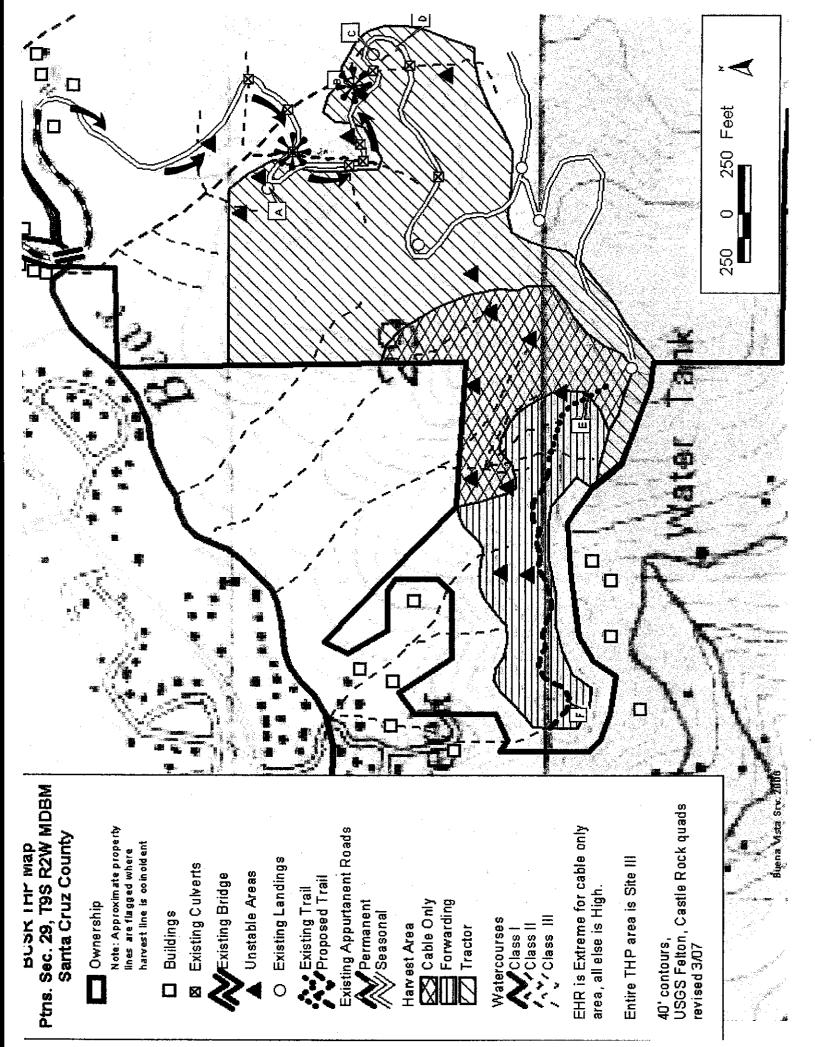
p) Central Coast Regional Water Quality Control Board Staff Site Inspection

Describe the most recent inspection of the property by Water Board staff:					
Name of Staff	Date of	Purpose of	Portion of property		
Person	Inspection	Inspection	inspected.		

Julia Dyer	6/18/07	Proposed waiver	Entire THP
i			i

q) Names and addresses of any property owner within 300 feet of the timber harvest area or harvest area entrance road (from public right of way).

See attached list from THP





Ownership

lines are flagged where harvest line is coincident Note: Approximate property

Buildings

Existing Culverts

/Existing Bridge

Unstable Areas

Existing Landings

Existing Trail
Proposed Trail

Existing Appurtanent Roads Permanent

/Seasonal

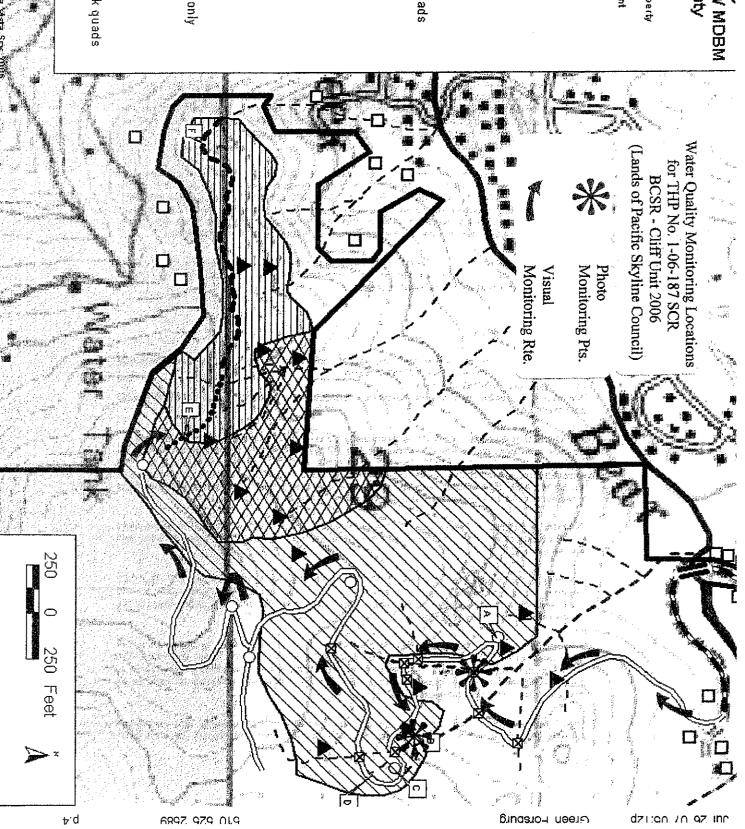
Haw est Area Cable Only Tractor Forwarding

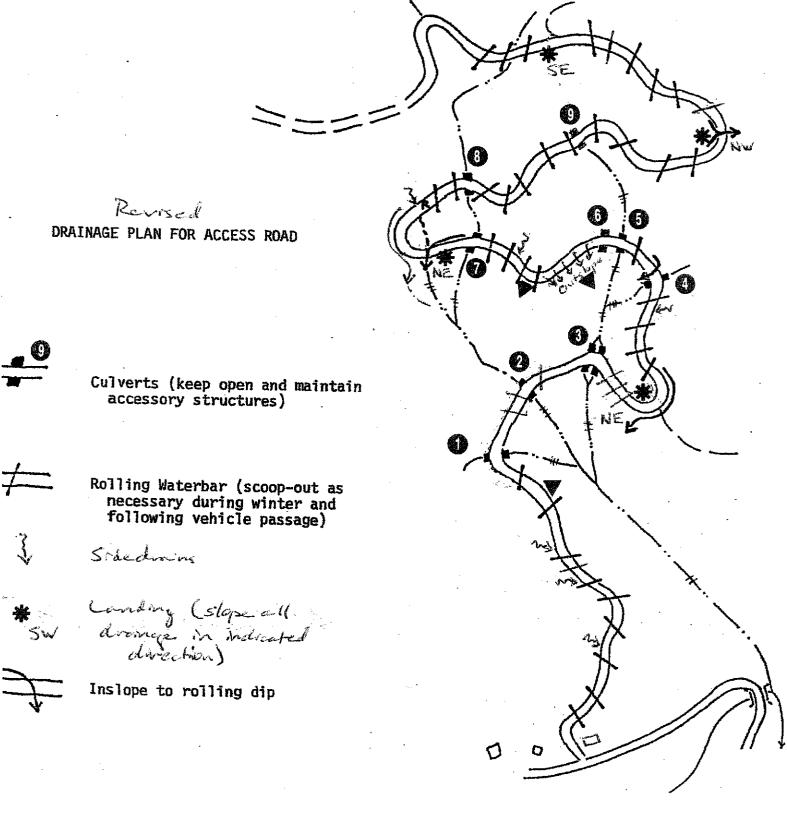
Watercourses Notass III Class II Class

area, all else is High. EHR is Extreme for cable only

Entire THP area is Site III

40' contours, USGS Felton, Castle Rock quads revised 3/07





General Notes:

- 1) Road to be outsloped and without berm except where indicated
- 2) Rolling waterbars to be located below side draws (as shown) and to avoid fill
- 3) Road should not be driven when saturated
- 4) Perfect in rock on road up to point "R"

A.T. & D.M. Ahern 089-311-02 (DH) 14510 Bear Creek Rd. Boulder Creek, CA. 95006

George M. Patterson, Trustee 089-311-03 (Dup) 400 Lansdale Ave. San Francisco, CA. 94127

Paul & Gayle Servel 090-191-01,02 (HA) 975 Nina Dr. Boulder Creek, CA. 95006

Rbt. & Cynthia Weisend 090-191-11 (A) 973 Elsie Mae Dr. Boulder Creek, CA. 95006

Kenneth Smith 090-194-02 (HA) 1170 Rebecca Dr. Boulder Creek, CA. 95006

Ricky Egan et al 090-024-22 (HA) 130 Hillsdie Way Boulder Creek, CA. 95006 Daniel & Norma Lindsey 090-222-23 (HA) 870 Highland Dr. Boulder Creek, CA. 95006

Richard Gaughan et al 089-311-04 (RDH) 236 Scout Ranch Rd. Boulder Creek, CA. 95006

Donald Gulcher 090-191-03,04 (HA) 980 Nina Dr. Boulder Creek, CA. 95006

Tamera Taylor, Trustee 090-191-12 (HA) 1200 Rebecca Dr. Boulder Creek, CA. 95006

Gregory & Edwige Dildine 090194-14 (HA) 1130 Rebecca Boulder Creek, CA. 95006 Nathan & Sarah Jeweil 090-222-10 (HA) 895 Nina Dr. Boulder Creek, CA. 95006

Richard & Shannon Gattey 089-311-05 (RH) 14590 Bear Creek Rd. Boulder Creek, CA. 95006

Peter & Naomi Bensen 090-191-05 (A) 16803 Farley Rd. Los Gatos, CA. 95032

Majorie Peter 090-194-01 (A) 3099 Old Post Ln Auburn, CA. 95603

Cindy Convisser 089-311-03 (RDH) 116 Scout Ranch Rd. Boulder Creek, CA. 95006

I certify that a Notice of Intent was mailed to the above names.

Date of Director's Decision June 28, 2007

OF CONFORMANCE OF TIMBER HARVESTING PLAN OR AMENDMENT TO TIMBER OFFICIAL NOTICE OF THE DIRECTOR OF FORESTRY'S DETERMINATION HARVESTING PLAN WITH THE FOREST PRACTICE ACT AND BOARD OF FORESTRY REGULATIONS

amendment (AM) listed below is in conformance with the Forest Practice Act, and Board of Forestry regulations pursuant thereto. This notice is The Director of Forestry found, on the date shown above, that the Timber Harvesting Plan, Non-Industrial Timber Management Plan (NTMP), or posted in compliance with sections 1037.1 and 1037.8, Title 14, California Code of Regulations.

Copies of this Harvest Document and related documents are available for inspection at: 6059 Hwy. 9, Felton, CA 95018

Silviculture or Proposed Amendment		
Waterway		
Location		
Acres		
Submitter		
Plan number	Ξ	

	
	SELECTION
	BEAR CREEK
	SECTION 29 T9S, R2W MDBM
	7.3
	1-06-187 SCR PACIFIC SKYLINE SANTA CRUZ COUNCIL, BOY SCOLITS OF AMERICA
County	1-06-187 SCR SANTA CRUZ

TO POSTING AGENCY: Please post this Notice at the place where official notices concerning Environmental Quality Act compliance are usually posted. If there are questions concerning posting, please contact: Forest Practice Office, California Department of Forestry and Fire Protection, 135 Ridgway Avenue,

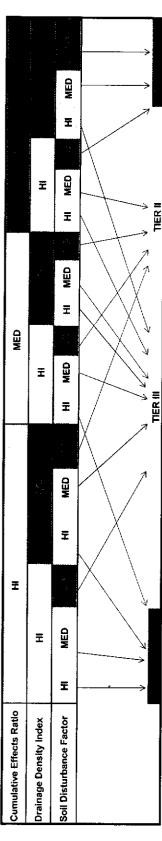
Telephone: (707) 576-2959 Santa Rosa, CA 95401

ce: RPF, TO/TLO/SUBMITTER, FEL, SCR, DFG, WO, CP, CC, DPR, SAC, PURCHASER, POST, FILE Posting Period is 30 Days

Eligiblity Criteria

Plan No.:	1-06-187 SCR
Plan Name:	Cliff Unit 2006

Regulatory and Monitoring Requirement Decision Tool



Regulatory Option Individual WDR or Waiver

Monitoring Requrements Individual Monitoring

General Conditional Waiver for Timber Operations

Ther III Monitoring Requirements include water column monitoring for temperature and turbidity, visual and photo monitoring of timber harvest area infrastructure, CDF Forest Practice Rules compliance monitoring, road inventory program, and forensic monitoring as necessary. Tier III monitoring is automatically required if ground based equipment is ued off of an all-weather road during the period October 15 - May 1.

Ther I Monitoring Requirements include CDF Forest Practice Rules compliance monitoring, road inventory program, and forensic monitoring as necessary.

High Med Low

Cumulative Effects Ratio >15% to 10% 10%

Drainage Density Index >100 75

Soil Disturbance Factor >2500 2500 to 1000 1070

10% High Winter Ops Proposed - Automatic Tier III
75 Low Medium

Plan No.:	1-06-187 SCR			
Plan Name:	BCSR Cliff Unit 2006		•	

Cumula	Cumulative Effects Ratio						
	Acres Proposed for	<u> </u>					
	Harvest or						
	Harvested in						
Is the proposed	Planning						
harvest in a	Watershed	Acres to be harvested		Total Acres in			
303(d) listed	(CalWater) in last	as part of proposed		Planning			
watershed?**	fifteen years*	THP/NTMP	Sum	Watershed	CER		
Yes	1008	73	1081	10385	10%		

^{*} Include all acreage in proposed and approved THPs/NTMPs

^{* *}Watershed 303d listed as impaired from sediment or temperature? If yes type "yes" or leave blank.

Plan No.: 1-06-187 SCR
Plan Name: BCSR Cliff Unit 2006

Drainage Density Index						
				Plan Area		
ft. of Class I	ft. of Class II	ft. of Class III	Corrected Sum	(ac)	DDI	
0		5500	5500	73	FIL THE 1875	

Plan No.:	1-06-187 SCR		i i
Plan Name:	BCSR Cliff Unit 2006		

Soil Disturbance Factor

Enter values in cells shaded yellow.

					Corrected	
Silviculture	T	Group(ac)	Selection(ac)		Sum	
	Harvest Area (ac) Area in THP (ac)	73	73		建築了構造	
	1 11 0 1 1 1 1 1 (WO)	73				
Roads		Seasonal/Temporary Existing	Proposed	All weather/ Permanent Existing	Proposed	
	Linear feet - Exisiting and	x 4	x 6	x 2	x 4	
	proposed	8000		2000	493	
		Class I	Class II	Class III		
		x 30	x 20	x 10		
	Crossings - Number and Class of watercourse crossed	i	3	4	130	
		x 10				
	Number of feet In-lieu/Ait rule in WLPZ				0	
		High x2	Extreme x5			
	EHR - Number of feet in high or extreme		0		0	
				Ro	ads Subtotal 629	
Skid Trails		Existing x 1.5	Proposed x 2.5		NAIL A STATEMENT	
	Linear feet - Exisiting and proposed	5700	1500	For unmapped acreage, add 100 feet per acre	168	
		Class I x 10	<u>Class II</u> x7	Class III x 3		
	Crossings - Number and Class of watercourse crossed			6	18	·
	5 1 Av 1 (14 1 1	x 5				
	Number of In-lieu/Alt rule in WLPZ				0	
		<u>High</u> x1.0	Extreme x2			
	EHR - Number of feet in high or extreme				0	
				Skid Tra	ails Subtotal 186	
Landings		Existing	Proposed			
	Ground-based	х 1.5 б	x 2.5		9	
	Helicopter	x 1	x 2		,	
	No. of huliou/Alt mile in	0			0	
	No. of ln-lieu/Alt rule in	x 3 0	x 5 0		. 0	
				Landi	ngs Subtotal	
FINAL SUM						
=	ations Proposed? Yes or No	Yes			Sub Total 892 Total 1070	
If yes, autor	matic Tier III monitoring.					

Exhibit 2

Monitoring Locations

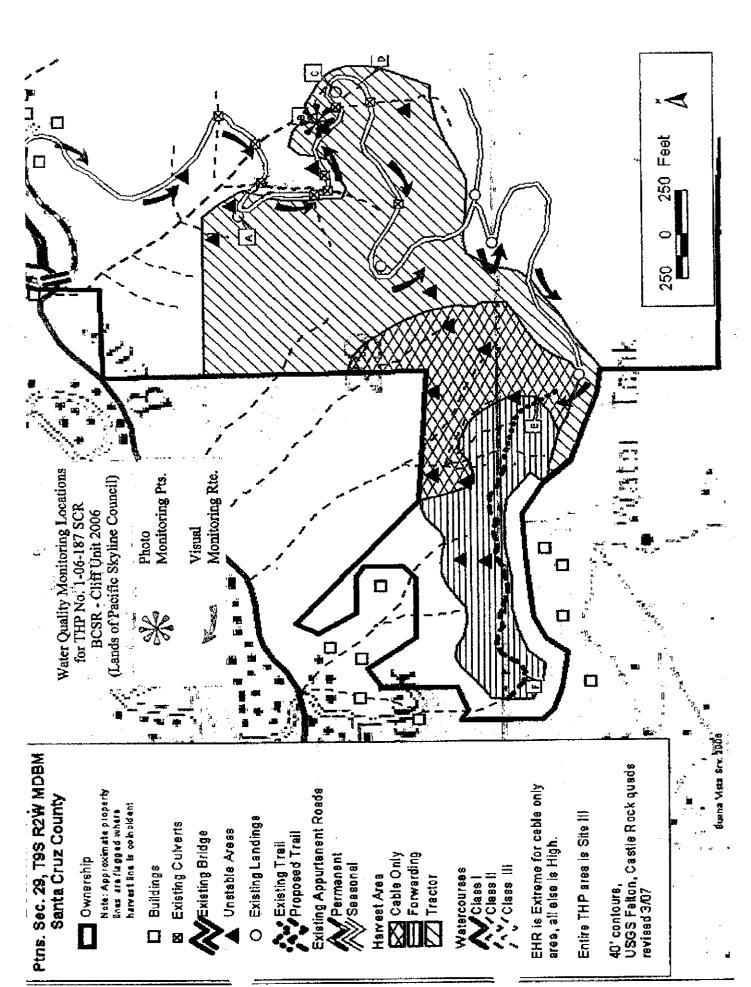


Exhibit 3

Big Creek Road Inventory Program

Standard Operating Procedure 5.2.3 Photo Documentation Procedure

Standard Operating Procedures Instream Turbidity Monitoring

BIG CREEK ROAD INVENTORY PROGRAM (BCRIP) PROTOCOL FOR CONDUCTING COMPANY ROAD INVENTORIES & MAINTENANCE

Purpose

Big Creek Lumber Company owns and controls over 11,000 acres of forestlands on which there are over 60 miles of permanent, temporary, surfaced, and un-surfaced roads. Maintenance of these roads requires frequent monitoring and treatment.

This document has been drafted to provide the standard operating procedures for conducting and recording road inventories and for the use of the inventory to direct appropriate treatments. This protocol has been drafted so as to guide road inventories consistent with Big Creek goals & objectives and with the certification of Big Creek's lands with the Forest Stewardship Council (FSC).

Process of Road Inventory

Big Creek conducts road inventories on varying intervals, depending upon (1) the designated use of the road, (2) the intensity and duration of precipitation received, (3) the hydrologic activity of the stream system in the area, (4) the susceptibility of the road and appurtenant crossings to failure or damage, and (5) the interval of time since that portion of road was used.

On properties where there has been recent activity or road use, especially if road drainage was altered or improved, review of the roads is conducted more frequently. For each portion of road, Big Creek has designated a standard interval of 2 inches of rain per storm event as the cue to send out maintenance crews. The 2" standard interval is subject to change based on the relationship between the five factors listed above.

When indicated by the interval period, or when deemed necessary otherwise, an individual or group of persons will review the portion of road. Road inventory may be conducted on foot, by pickup, or (especially in wet periods) by ATV or other light-tracking vehicle. While conducting the inventory, the person or persons will do handwork, where necessary, to clear and improve drainage structures and culverts.

Each instance a portion of road is inventoried, a form is filled out recording the observations of the person (see Appendix B, Road Inventory Form). This form allows the person to record the location, date, problem, and proposed solution. This form is then submitted to the Chief Forester of Operations (CFO).

After the road inventory form is completed, it is entered into the roads inventory database (a spreadsheet which tracks observations, work completed, and dates of last review for a portion of road).

If the need for repair or maintenance is immediate, the road reviewer will immediately notify the Chief Forester of Operations so that an appropriate treatment may be planned and initiated. All road inventory forms submitted to the CFO are reviewed, and potentially urgent problems are further analyzed to determine if immediate treatment is necessary. When immediate treatment is prescribed, the project is listed with indication of urgency on a dry crase board posted in the Big Creek Forestry Office. As soon as resources are available to conduct the treatment operations, the necessary equipment, materials, and personnel are dispatched to the site.

After the site is treated, the CFO or the CFO's designee will review the site to determine the success of the treatment. This site, at an interval dependent upon the treatment, will be reviewed over time to evaluate success of treatment and to determine if follow-up treatment is necessary.

For sites that do not require immediate treatment, the records for that site will not be further reviewed until the biennial summary of roads is prepared (May: 1 and November 1 of every year). At these times corresponding to the approximate end and beginning, respectively, of the winter period), the latest records for each property are reviewed and responsibility for appropriate treatments are delegated. Subsequent evaluation of the treatment's success is conducted, and follow-up treatment prescribed, if necessary.

ELEMENTS OF THE FIVE FACTORS THAT DETEMINE INSPECTION TRIGGERS FOR THE BCRIP:

Watershed:

Threatened and Impaired

303 (D) Listed Stream Segments

Sub-division/home proximity to project area

Orographic effect:

South county vs. North county

Project elevation, low vs. high in the watershed

Road conditions outside of project area that contribute or receive flow

Watercourse classifications for project area

Porosity:

Fast vs. slow

Soil type - sandstone/shale/granite

High vs. low rock content

Ground saturation point/springs begin to flow at higher rates

Topography:

Steep/flat/undulating

Indication of instabilities/ tipped trees/earth fractures/slides

Proximity to San Andreas Fault

Vegetative Cover Type:

Brush/oak woodland/conifer

General vegetative cover

General Elements Associated with Infrastructure:

Age of road:

Older vs. newer road/existing leaf cover/general vegetation cover

History:

Legacy problems/old humboldt crossings

Who designed and implemented the existing road/crossings.

Past performance and condition of general infrastructure

Location of road:

Ridge top/steep ground/proximity to watercourse/roads on unstable areas

Road surfacing:

Rocked/ based/seeded/straw mulched/slash packed/un-surfaced

Road Standard:

Insloped/outsloped/crowned/re-contoured:

Spittler outslope of new roads

Full bench road cut/balanced cut and fill/fill

Through cuts/long run of through cut

Berms on outside edge of road

Seasonal/all winter road

Type of drainage and crossings:

Waterbars/rolling dips/bridges/culverts/rocked fords

Current condition of erosion control structures/How much do you think they can handle

Trespass

4WD/motorcycles/mountain bikes/horses/foot traffic

Watercourse crossing location and frequency

Gopher holes

Pig wallows/rooting

PG&E access road

EHR rating in THP.

Weather

Interval of time since the last rain event

Type of rain year/El nino/are storms holding more rain

Jet stream status

High pressure or low pressure

Wind direction:

South East - Strong high pressure

South - Storm medium pressure

Southwest - Storm low pressure

East/Southeast - Strong extreme low pressure

West - Cleaning

Check the barometer

Soaking, low intensity, rain vs. hard, high intensity, rain

General weather patterns

Trigger Assessment Tools:

Weather radio

Barometer

Local contacts:

Forest landowners

Local news forecasts

Tell tail locations:

Creek mouths open to the ocean

General overland flow

.Bridge crossings of major rivers/streams/creeks throughout the county

Etc...

State wide contacts

Other foresters and forestry companies

California Newts:

Moving uphill vs. downhill

Weather web sites (rainfall, stream flow, satellite imagery, forecasts, flood warnings, etc...):

http://www.wrh.noaa.gov/mtr/

http://www.goes.noas.gov/

http://water.usgs.gov/cgi-bin/waterwatch?map_type=real&state=ca

http://cdec.water.ca.gov/misc/realStations.html

http://www.weather.com/maps/maptype/satelliteworld/pacificoceansatellite large animated.html?

http://www.wrh.noan.gov/mtr/gettext.php?pil=RR5&sid=RSA

http://www.surfline.com/home/index.cfm

http://weather.cnn.com/weather/forecast.jsp?locCode=SRU

OWNERSHIP: DATE:	NAME(S):	
LOCATION:		
LOCATION:		
		_
PROBLEM:		
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	CODIF	
	CODES	
SOLUTION:		
	CODES	
Y OO VIIION		
LOCATION:		
PROBLEM:		
	CODES	
SOLUTION:		
	CODES	
PROBLEM	SOLUTION	
	Replace A	
Cur-Bank Failure 1 Fill-Slope Failure 2	Reconstruct B	
	Drain C	
Water Bar Pailure 3	Resurface D	
Fill Failure 4 Drainage Problem 5	Remove E	
Cricks/Settling 6	Cover F	
Plugged Culvert 7	Mecha tucal M 1-Jand Work H	
Wash-Out 8 Slide Debris/Flow 9	Temporary T	
Trees Blocking Road 10	Permanent P	

Standard Operating Procedure 5.2.3

Photo Documentation Procedure

Introduction:

Photographs provide a qualitative, and potentially semi-quantitative, record of conditions in a watershed or on a water body. Photographs can be used to document general conditions on a reach of a stream during a stream walk, pollution events or other impacts, assess resource conditions over time, or can be used to document temporal progress for restoration efforts or other projects designed to benefit water quality. Photographic technology is available to anyone and it does not require a large degree of training or expensive equipment. Photos can be used in reports, presentations, or uploaded onto a computer website or GIS program. This approach is useful in providing a visual portrait of water resources to those who may never have the opportunity to actually visit a monitoring site.

Equipment:

Use the same camera to the extent possible for each photo throughout the duration of the project. Either 35 mm color or digital color cameras are recommended, accompanied by a telephoto lens. If you must change cameras during the program, replace the original camera with a similar one comparable in terms of media (digital vs. 35 mm) and other characteristics. A complete equipment list is suggested as follows:

Required:

- Camera and backup camera
- Folder with copies of previous photos (do not carry original photos in the field)
- Topographic and/or road map
- Aerial photos if available
- Compass
- Timepiece
- Extra film or digital disk capacity (whichever is applicable)
- Extra batteries for camera (if applicable)
- · Photo-log data sheets or, alternatively, a bound notebook dedicated to the project.
- Yellow photo sign form and black marker, or, alternatively, a small black board and chalk

Optional:

- GPS unit
- Stadia rod (for scale on landscape shots)
- · Ruler (for scale on close up views of streams and vegetation)

marker post) then have an alternate method (map, aerial photo, copy of an original photograph of the photo-point, etc).

- 2. Select an existing structure or landmark (mailbox, telephone pole, benchmark, large rock, etc.), identify its latitude and longitude, and choose (and record for future use) the permanent position of the photographer relative to that landmark. Alternatively, choose the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the photographer.
- 3. For restoration, fuel reduction, and BMP projects, photograph the photo-points and carry copies of those photographs on subsequent field visits.

Determining the Compass Bearing:

- 1. Select and record the permanent magnetic bearing of the photo center view. You can also record the true compass bearing (corrected for declination) but do not substitute this for the magnetic bearing. Include a prominent landmark in a set position within the view. If possible, have an assistant stand at a fixed distance from both the photographer and the center of the view, holding a stadia rod if available, within the view of the camera; preferably position the stadia rod on one established, consistent side of the view for each photo (right or left side).
- 2. Alternatively, use the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the focal point (photo center).
- 3. When performing ambient or event photo monitoring, and when a corn pass is not available, then refer to a map and record the approximate bearing as north, south, east or west.

Suggestions for Photo Points by Type of Project:

Ambient or Event Monitoring, Including Photography Associated with Narrative Visual Assessments:

- 1. When first beginning an ambient monitoring program take representative long and/or medium view photos of stream reaches and segments of shoreline being monitored. Show the positions of these photos on a map, preferably on the stream/shore walk form. Subjects to be photographed include a representative view of the stream or shore condition at the beginning and ending positions of the segment being monitored, storm drain outfalls, confluence of tributaries, structures (e.g., bridges, dams, pipelines, etc.).
- 2. If possible, take a close view photograph of the substrate (streambed), algae, or submerged aquatic vegetation.

- 4. Long view and medium view of streambed changes (thalweg, gravel, meanders, etc.)
- 5. Medium and close views of structures, plantings, etc. intended to induce these changes.
- 6. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 3 and 4 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, Stream Channel Reference Sites: An Illustrated Guide to Field Techniques, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

Vegetation Management for Fire Prevention ("fuel reduction"): . :

- 1. Aerial view (satellite or airplane photography) if available.
- 2. In the absence of an aerial view, a landscape, long view showing all or representative sections of the project (bluff, bridge, etc.)
- 3. Long view (wide angle if possible) showing the project area or areas. Preferably these long views should be from an elevated vantage point.
- 4. Medium view photos showing examples of vegetation changes, and plantings if included in the project. It is recommended that a person (preferably holding a stadia rod) be included in the view for scale
- 5. To the extent possible include medium and long view photos that include adjacent stream channels.

Stream-Sediment Load or Erosion Monitoring:

- 1. Long views from bridge or other elevated position.
- 2. Medium views of bars and banks, with a person (preferably holding a stadia rod) in view for scale.
- 3. Close views of streambed with ruler or other common object in the view for scale.
- 4. Time series: Photograph during the dry season (low flow) once per year or after a significant flood event when streambed is visible. The flood events may be episodic in the south and seasonal in the north.

PHOTO-LOG FORM

Project:

Location:

Date:					
Photo	graphe	ri			
Team	membe	ers:			
Photo #	Time	Photo Point ID	Photo Pt. Description & Location	Bearing to Subject	Subject Description
			·		
	•				

General Notes or Comments (weather, cloud cover, time of sunrise and sunset, other pertinent information):



Timber Harvest Program

Standard Operating Procedures for Instream Turbidity Monitoring

October 2006

already collected from the monitoring location. Some models of the bench top style turbidimeter are designed to be taken into the field.

Whether a bench top turbidimeter or probe is used, the equipment must report turbidity levels in Nephelometric Turbitity Units (NTUs) and be able to read within a scale of at least 0-1,000. Each piece of equipment must be assigned a unique equipment identification number.

Calibration and Accuracy Checks

Turbidity equipment (probe or bench top turbidimeter) must be calibrated within twenty-four hours prior to each sampling event using standard reference materials and following the manufactures instructions. Calibration must include at least two calibration points that are intended to bracket the expected conditions in the field. Calibration data must be recorded on the data sheet and include the equipment identification number, date and time, result prior to calibration, value of calibration standard, and result following calibration.

An accuracy check must be preformed on the turbidity equipment within 24 hours following each sampling event. Accuracy check must include the same calibration points and certified reference materials as were used in the pre sampling calibration. If the readings are not within 5% of the standard value for any of the ranges, the probe or bench top turbidimeter must be recalibrated. Accuracy check data must be recorded on the data sheet and include equipment identification number, date and time, accuracy check result, and value of calibration standard.

Field Collection Procedures

Take turbidity reading with the probe or collect the grab sample away from the stream bank in the main current in a location that best represents the water column. An optimal location would be in a relatively straight reach that is well mixed, with uniform hydraulics, and away from turbulence. Never sample stagnant water.

When wading² to the site try not to disturb bottom sediment. Be careful not to take a turbidity reading or collect water that has sediment from bottom disturbance. Mark the site with flagging, photo-documentation, or other method to ensure that subsequent sampling occurs at the same location.

Probe

The discharger must take a turbidity reading using a probe that has been cleaned according to the manufacture's specifications or collect the sample using a clean sample container.

² A small clean container, such as a bucket, attached to a long handle may be used to collect a sample from a stream if direct access to the bank is difficult or dangerous.

If using a probe, identify a sampling location and place the probe in the stream at least 2.0 cm below the waters surface but not more than 4.0 cm below the surface. Allow the probe measurement to stabilize (see manufactures instructions) and record the result on the field data sheet.

Grab samples

The sample container must be a plastic, wide mouthed, bottle with a screw top lid. Analyze the samples immediately. If samples will be placed in storage prior to analysis, they must be stored in amber laboratory bottles at 4° C for a time period not to exceed twenty four hours.

All bottles must be cleaned prior to each use according to the following specifications, 1) Wash each sample container with a brush and phosphate-free detergent, 2) Rinse three times with cold tap water.

Prior to sample collection label the bottle with the name of the sampler, location, and the date/time the sample was taken. Identify the sampling location and stand facing upstream. Rinse sample container three times with ambient water before filling with sample. To collect the sample, lower the lip of the bottle below the surface of the water and towards the current. Collect the sample with a "scooping" motion to sample the full water column instead of just one spot. (see Attachment 1, Collecting a Turbidity Grab Sample) Promptly³, pour out excess water to leave at least a 1-inch air space so the sample can be re-suspended (by inverting the sample container several times) prior to analysis.

Stage Measurements

At each monitoring location establish a staging location where the substrate is relatively stable. During each sampling event measure stream stage with a yard stick, staff gauge, or staff plate for comparison to future measurements.

Sample Analysis

Perform the sample analysis per the manufacture's recommendation for the turbidimeter. If performing analysis with a bench top turbidimeter, conduct analysis on three separate sub-samples⁴ from the same bottle and record the median⁵ on the Data Sheet. Always re-suspend the sample by gently inverting the sample bottle several times (do not shake as air bubbles can interfere with your readings) before transferring to sub sample vials to prevent a misrepresentative reading due to settling.

³ This must be done immediately after collecting the sample. Waiting to pour out excess water can create an unrepresentative sample as some material may have already settled.

can create an unrepresentative sample as some material may have already settled.

⁴ If using bench top turbidimeter, all vials for subsamples must be cleaned to manufacture's recommendations.

⁵ Constituting the middle value in the distribution.

Data Sheet

All sections of the field data sheet must be completed for each monitoring event.

Identify the Timber Harvest Plan (THP) or Nonindustrial Timber Management Plan (NTMP) number, Plan Name, and monitoring year. For NTMPs identify the unit or notice of timber operations (NTO) number.

Identify the monitoring sites with a unique site identification (ID). This ID needs to correlate to the monitoring maps in the MRP. Provide the latitude and longitude of each site in decimal degree format (e.g. 35.345600N 122.678900W).

Identify the type of turbidimeter or probe.

Provide data from pre sampling calibration prior to each monitoring event, including the equipment identification number, date and time, result prior to calibration, value of calibration standard, and result following calibration. Record the name of the person who conducted the calibration.

Provide data from accuracy checks following each monitoring event, including the equipment identification number, date and time, accuracy check result, and value of the standard. Record the name of the person who conducted the accuracy check.

Provide the date and time each sample was taken and the date and time the sample was analyzed. Record the stage height and note any additional information such as problems at the site or any other observations.

Note the rain gauge location reading and time; amount and duration of rainfall; and current weather.

Estimate whether the stream is on the rising or falling limb of the hydrograph.

Reporting Requirements

By November 15 of each year, the discharger must submit an Annual Report to the Central Coast Water Board per the requirements in the MRP and the following:

- ❖ A summary of the water quality monitoring performed during the previous year. Any monitoring described in the summary must also include the data submitted in an electronic format compatible with Excel.
- ❖ A detailed map⁶ meeting the following specifications:
 - o In color (if possible).
 - o Title stating: "Water Quality Monitoring Locations for THP No. XXXX"
 - All monitoring locations and routes clearly marked with unique site identification tags.
 - o A Key or Legend identifying all monitoring locations and routes.
 - o North Arrow.
 - o Scale
- Completed Field Data Sheets with data from all monitoring events.

⁶ The map needs to be submitted only once unless monitoring station locations are modified. In the future a map with unique monitoring site tags shall be submitted with the Timber Harvest Information Form and Fact Sheet.

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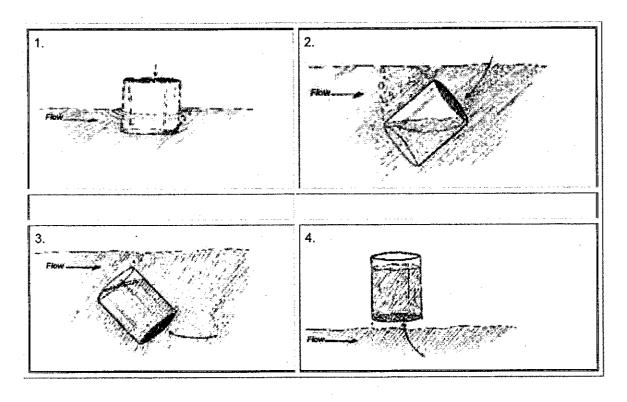
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Document1



Getting into position to take a turbidity grab sample.



Taking a water sample.

Turn the bottle into the current and scoop in an upstream direction.

Sketches taken from USEPA "Quality Assurance, Quality Control, and Quality Assessment Measures. Figures 5.2 and 5.3" Volunteer Stream Monitoring: A Methods Manual http://www.epa.gov/volunteer/stream/vms50.html